

REMARKS

1. Restriction Requirement

The Office Action dated June 15, 2004 requires restriction to one of three groups of claims:

- I. Claims 1 – 28;
- II. Claims 29 – 36; and
- III. Claims 37 – 42.

Applicants elect Group I with traverse.

Specifically, Applicants traverse the restriction between the Groups as improper pursuant to MPEP sections 806.05(e) in light of the U.S. Patent and Trademark Office's published Examination Guidelines for Computer-Related Inventions ("EGCRI"). In MPEP § 806.05(e) it states that "[i]n applications claiming inventions in different statutory categories, only one-way distinctiveness is generally needed to support a restriction requirement." Specifically, invention distinctiveness for a process and an apparatus for its practice requires a showing "(1) that the process *as claimed* can be practiced by another materially different apparatus or by hand, or (2) that the apparatus *as claimed* can be used to practice another materially different process." (*Id.*, emphasis in original). In the absence of such distinctiveness, a restriction requirement between claims directed to a process and an apparatus for its practice is improper. With respect to computer-related inventions, EGCRI §IV.B.2.(a)(i) clarifies that when an apparatus claim encompasses "*any and every* computer implementation of a process, when read in light of the specification, the claim should be examined on the basis of the underlying process" (emphasis in original). That section continues with an example of how to recognize such an apparatus claim. It will:

- define the physical characteristics of a computer or computer component exclusively as functions or steps to be performed on or by a computer, and
- encompass *any and every* product in the state class (e.g., computer, computer-readable memory) *configured in any manner* to perform that process. (*Id.*)

Application of the standard is illustrated in a hypothetical provided in EGCR §IV.B.2.(a)(iii) by describing the subject matter to be recited in the patent specification. Specifically, “[t]he disclosure [should state] ... that it would be a matter of routine skill to select an appropriate conventional computer system and implement the claimed process on that computer system. The disclosure [need] not have specific disclosure that corresponds to the [exemplary] limitations recited in the claim (i.e., no specific software or logic circuit).” Under such circumstances, the “[c]laim encompasses any computer embodiment of process claim [and] patentability stands or falls with process claim.” (*Id.*).

In the instant application, the claims included in Group II define physical characteristics of a substrate processing system with a memory having a computer-readable medium with instructions for performing recited functions. Similarly, the claims included in Group III define a computer-readable storage medium having instructions for performing recited functions. In addition, the specification does not include specific software, i.e., programming code recited to define the those functions. Rather, the specification explicitly states that computer code executed by a processor “can be written in any conventional computer-readable programming language such as 68000 assembly language, C, C++, or Pascal.” (Application, p. 20, ll. 24 – 26), thus indicating that it would be a matter of routine skill to select an appropriate conventional computer system and implement the claimed process on the computer system.

Thus, the computer-readable storage medium and substrate processing system defined by the claims included in Groups II and III encompasses any and every product in the class configured in any manner to perform the process defined by claims included in Group I. As a result, the claims included in those groups should be rejoined with the claims of Group I as they necessarily stand or fall together, *i.e.*, the patentability the apparatus claims in Groups II and

III hinges on the patentability of the process claims of Group I. It was therefore improper to restrict the claims of Groups II and III from the claims of Group I, and they should be rejoined.

The restriction between the groups is also traversed based the fact that claims in Groups II and III are linking claims. To summarize the relevant law, “[t]here are a number of situations . . . in which an application has claims to two or more properly divisible inventions, so that a requirement to restrict the application to one would be proper, but presented in the same case are one or more claims (generically called “linking” claims) *inseparable therefrom* and thus linking together the inventions otherwise divisible.” (MPEP § 809.03)(emphasis added). A common type of linking claim includes means for practicing a process linking proper apparatus and process claims. (*Id.*).

In the present case, Claims 29 and 37 define apparatus for performing the steps of the method recited in Claim 22. As such, it is a linking claim and it is improper to restrict Claims 29 and 37 from Group I. In addition, Applicants respectfully contend that should the linking claims be deemed allowable, then the restriction requirement would be improper and the requirement restricting the claims would need to be withdrawn (See MPEP 818.03(d)). Since each of the apparatus claims in Groups II and III is thus linked with the method claims of Group I, the claims of those groups would not be divisible from those of Group I were the linking claims found to be allowable.

2. Species Elections

The Office Action also requires two separate elections of species. First, the Office Action requires election of one of Species A1 and A2. Applicants elect Species A2 without traverse. At least Claim 20 reads on the elected species. At least Claims 1 – 18, 20 – 42 are generic to the elected species.

Second, the Office Action requires election of one of Species B1 and B2. Applicants elect Species B1 with traverse. Claim 5 reads on the elected species. It is noted that Species B1 is identified as “wherein the core is an SiON glass” and Species B2 is identified as

“wherein the core is a P or Ge doped glass.” The inclusion of any one of nitrogen, phosphorus, or germanium as a dopant in a silicon oxide glass does not preclude the inclusion of another dopant. Thus, for example, a SiON glass may be further doped with P or with Ge, and similarly a glass doped with P or Ge may be further doped with N. Thus, all claims are believed to be generic to the elected species.


Applicants further note their understanding that the Office will follow the procedure set forth in MPEP §809.02(c), which provides for a complete action on the merits of all claims readable on the elected species, with rejoinder and examination of claims to additional species embraced by allowable generic claims.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 303-571-4000.

Respectfully submitted,


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